



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,748	07/14/2003	Marko Zimmer	21336	3145

7590 01/13/2004

Peter N. Lalos
Kenneth J. Whittington
STEVENS, DAVIS, MILLER & MOSHER, LLP
1615 L Street, NW, Suite 850
Washington, DC 20036-5622

EXAMINER

TRIEU, THAI BA

ART UNIT

PAPER NUMBER

3748

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,748	ZIMMER ET AL.	
	Examiner	Art Unit	
	Thai-Ba Trieu	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 12-14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

The Preliminary Amendment filed on July 14, 2003 is acknowledged. Claims 1-9 were amended, and claims 10-14 were added.

Information Disclosure Statement

The listing of references of **DE 182 22 874 A1** and **DE 199 48 220 A1** in the specification is not a proper information disclosure statement (See Page 2) 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

Applicants are suggested to correct the minor informalities as following:

- On Page 5, lines 6, "**turbine housings 16d, 18d**" should be replaced by **--exhaust gas turbines 16d, 18d--**; and line 14, **-"exhaust gas turbine 16d, 18d"** should be replaced by **--exhaust gas turbines 16d, 18d--**.
-

Claim Objections

Claim 1 is objected because the following minor informalities:

- Line 1, "***Configuration of***" should be replaced by **--A configuration of--**.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 and its dependent claims 2-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically,

- In claim 1, line 2, the phase "***in particular***" renders the claim indefinite.

Therefore, the phase has been held that the recitation that an element is "in particular" should be deleted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, and 10 are rejected under 35 U.S.C. 102 (b) as being anticipated by Mendle et al. (Patent Number 4,464,902).

Mendle discloses a configuration of at least two exhaust gas turbochargers (1,2) on an internal combustion engine with a plurality of cylinders in a motor vehicle (See Abstract lines 1-8),

in which two turbine housings (13,14) are connected to an exhaust gas system of the internal combustion engine and are immediately adjacent to each other, and each turbine (9, 10) is always connected to one compressor (3,4) by means of a drive shaft (30,30), the drive shafts being rotatably mounted in corresponding bearing housings (15,16), characterized in that the turbine housings (13,14), are oriented so that the drive shafts (30,30) are at least approximately aligned with each other and in that the bearing housings (15,16) on both sides are connected to the turbine housings (13,14);

wherein the turbine housings (13, 14) are integrally cast as one structural unit (See Figure 1, Column 3, lines 55-60);

wherein admission channels of the turbine housings (13, 14) are connected by way of exhaust gas lines separate from each other to specific cylinders of the internal combustion engine;

wherein the turbine housings (13, 14) have a common discharge channel (19, and discharger funnel 24) for exhaust gas leading to an exhaust gas line mounted downstream (See Figure 1, Column2, lines 32-54).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendle et al. (Patent Number 4,464,902), in view of Morita et al. (Patent Number JP 59160027 A).

Mendle discloses the invention as recited above; however, Mendle fails to disclose a detailed structural connection of the admission exhaust gas channels to a four-cylinder in-line internal combustion engine.

Morita teaches that it is conventional in the turbocharged engine art, to utilize a four-cylinder in-line internal combustion engine having one admission channel connected to two cylinders and another admission channel to the other two cylinders, and an ignition gap between the cylinders interconnected on an exhaust gas side always amounting to 360 degrees (crankshaft) (See Figure 1, Abstract and Constitution).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a detailed structural connection of the admission exhaust gas channels to a four-cylinder in-line internal combustion engine, as taught by Morita, to improve the supercharging efficiency of the Mendle multi-cylinder engine.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mendle et al. (Patent Number 4,464,902), in view of Lohmann et al. (Patent Number 6,202,415 B1).

Mendle discloses the invention as recited above; however, Mendle fails to disclose the two exhaust gas turbochargers, are each provided with separate bypass lines, which, each under the control of a bypass valve, permit separate boost pressure adjustments.

Lohmann teaches that it is conventional in the turbocharged engine art, to utilize the two exhaust gas turbochargers (3,4), are each provided with separate bypass lines (9,10), which, each under the control of a bypass valve, permit separate boost pressure adjustments (See Figure 1, Column 2, lines 50-54).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the two exhaust gas turbochargers, are each provided with separate bypass lines, which, each under the control of a bypass valve, permit separate boost pressure adjustments, as taught by Lohmann, to improve the supercharging efficiency of the Mendle multi-cylinder engine.

Allowable Subject Matter

Claims **7-9, and 12-14** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Bergmann et al. (US Patent Number 5,142,867) disclose a compound turbo-drive for an internal combustion engine.

- Browne et al. (US Patent Number 2,359,615) disclose a multi-supercharger control system.

- Sherbondy (US Patent Number 1,310,682) discloses a duplex turbo-compressor.

- Sprick (US Patent Number 3,027,706) discloses a turbocharged V-type engine.

- Thryhorn (US Patent Number 3,469,393) discloses a turbocharged internal combustion engine.

- Société Anonyme Des Ateliers De Constructions Mécaniques Escher Wyss & C^{ie} (Patent Number FR 645,393) discloses a two stage centrifugal pump having a regulated device at a common discharge port.

- Niwa et al. (Patent Number JP 03 070818 A) disclose a supercharged engine having a connecting exhaust passage forming a portion downward to be bent to the second supercharger side.

- Inoue et al. (Patent Number JP 60 216030 A) discloses an internal combustion engine installing two turbochargers, wherein one of the turbocharger has a bypass passage through one exhaust pipe.

- Esch (Patent Number DE 37 35 736 A1) a device for controlling a turbo-supercharger set.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00), every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

TTB
January 11, 2004



Thai-Ba Trieu
Patent Examiner
Art Unit 3748



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700